ABSTRACT

During manufacturing of optical disks, mastering equipment inserts marks ("high frequency wobble marks" or "HFWMs") into the wobble of the groove on optical disks to store data. The presence of a HFWM at a zero crossing of the wobble indicates an active bit and the absence of the HFWM indicates an inactive bit. The zero crossing is, for example, a negative zero crossing. A matched filter is used to detect the shape of the HFWMs. If a HFWM is detected during a wobble cycle, an active bit is saved in a register or a memory. If a HFWM is not detected during a wobble cycle, an inactive bit is saved in a register or a memory. The active and inactive bits may be coded bits that must be decoded to data bits. The data bits include information such as a synchronization mark, a sector identification data, and an error detection code.